



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Seymour Benzer and Examiner: Not Yet Known
Kyung-Tai Min
Serial No.: 09/895,141 Group Art Unit: 1614
Filed: June 29, 2001 Docket No.: 30431.3US01
Title: LIFE EXTENSION OF DROSOPHILA BY A DRUG TREATMENT

CERTIFICATE UNDER 37 CFR 1.8:

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on October 2, 2001.


By: Tracy Truick

INFORMATION DISCLOSURE STATEMENT (37 C.F.R. §1.97(b)(3))

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form 1449 are brought to the attention of the Examiner. They are as follows:

- Alfageme, C. R., Zweidler, A., Mahowald, A. & Cohen, L. H. Histones of *Drosophila* embryos *J. Biol. Chem.* 12, 3729-3736 (1974) (Exhibit 1)
- Benzer, S., Behavioral Mutants Of *Drosophila* Isolated By Countercurrent Distribution, *Proc. Natl. Acad. Sci. U.S.A.* 58, 1112-1119 (1967) (Exhibit 2)
- Guarente, L & Kenyon, C., Genetic pathways that regulate ageing in model organisms, *Nature* 408, 255-262 (2000) (Exhibit 3)
- Imai, S., Armstrong, C. M., Kaeberlein, M. & Guarente, L. The transcriptional silencing and longevity protein Sir2 is an NAD-dependent histone deacetylase. *Nature* 403, 795-800 (2000) (Exhibit 4)

Seymour Benzer and Kyung-Tai Min

Serial No. 09/895,141

Filed: June 29, 2001

Page 2

- Kim, S., Benguria, A., Lai, C. & Jazwinski, S. M. Modulation of life-span by histone deacetylase genes in *Saccharomyces cerevisiae* *Mol. Biol. Cell* 10, 3125-3136 (1999) (Exhibit 5)
- Lea et al. Induction of Histone Acetylation and Growth Regulation in Erythroleukemia Cells by 4-phenylbutyrate and Structural Analogs *Anticancer Research* 19:1971-1976 (1999) (Exhibit 6)
- Lea, M. A. & Randolph, V.M. Induction of reporter gene expression by inhibitors of histone deacetylase *Anticancer Res.* 18, 2717-2721 (1998) (Exhibit 7)
- Lee, C. et al. Gene expression profile of aging and its retardation by caloric restriction *Science* 285, 1390-1393 (1999) (Exhibit 8)
- Lin, Y. J., Seroude, L. & Benzer, S. Extended life-span and stress resistance in the *Drosophila* mutant *methuselah* *Science* 282, 943-946 (1998) (Exhibit 9)
- Mannervik, B. The isoenzymes of glutathione transferase. *Adv. Enzymol. Relat. Areas Mol. Biol.* 57, 357-417 (1985) (Exhibit 10)
- Orr, W. C. & Sohal, R. S. Extension of life-span by overexpression of superoxide dismutase and catalase in *Drosophila melanogaster*. *Science* 263, 1128-1130 (1994) (Exhibit 11)
- Orr, W. C. & Sohal, R.S. Effects of Cu/Zn superoxide dismutase overexpresion on life span and resistance to oxidative stress in transgenic *Drosophila melanogaster*. *Arch. Biochem. Biophys.* 301, 34-40 (1993) (Exhibit 12)

Seymour Benzer and Kyung-Tai Min

Serial No. 09/895,141

Filed: June 29, 2001

Page 3

- Parkes, T. L. *et al.* Extension of *Drosophila* lifespan by overexpression of human SOD1 in motoneurons. *Nat. Genet.* 19, 171-174 (1998) (Exhibit 13)
- Rogina, B., Reenan, R. A., Nilsen, S. P. & Helfand, S. L. Extended life-span conferred by cotransporter gene mutations in *Drosophila* *Science* 290, 2137-2140 (2000) (Exhibit 14)
- Shelton, D. N. *et al.*, Microarray analysis of replicative senescence *Current Biology* 9, 939-945 (1999) (Exhibit 15)
- Tatar, M., Khazaeli, A. A. & Curtsinger, J. W. Chaperoning extended life. *Nature* 390, 30 (1997) (Exhibit 16)
- Webster, G. C. & Webster, S. L. Specific disappearance of translatable messenger RNA for elongation factor one in aging *Drosophila melanogaster*. *Mech. Ageing Devel.* 24, 335-342 (Exhibit 17)
- Zou, S., Meadows, S., Sharp, L., Jan, L.Y. & Jan, Y. N. Genome-wide study of aging and oxidative stress response in *Drosophila melanogaster* *Proc. Natl. Acad. Sci. U.S.A.* 97, 13726-13731 (2000) (Exhibit 18)

This statement should be considered because it is submitted before the mailing date of the first Office Action on the merits according to C.F.R. §1.97(b)(3). In accordance with 37 C.F.R. §1.98(d), copies of each document or other information listed on the enclosed Form 1449 are provided.

No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§ 102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to establish

Seymour Benzer and Kyung-Tai Min
Serial No. 09/895,141
Filed: June 29, 2001
Page 4

that the reference(s) are not "prior art." Moreover, Applicants do not represent that the references have been thoroughly reviewed or that any relevance of any portion of a reference is intended.

Consideration of the items listed is respectfully requested. Pursuant to the provisions of M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form 1449, marked as being considered and initialed by the Examiner, to the undersigned with the next official communication.

No fee is deemed necessary in connection with the filing of this Information Disclosure Statement. However, if any additional fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 50-0306.

Respectfully submitted,

Sarah B. Adriano

Sarah B. Adriano
Registration No. 34,470
Attorney for Applicants
Mandel & Adriano
35 No. Arroyo Parkway, Suite 60
Pasadena, California 91103
(626) 395-7801
Customer No. 26,941

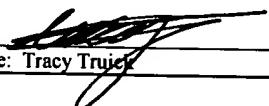


IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Seymour Benzer and Kyung-Tai Min
Serial No.: 09/895,141
Filed: June 29, 2001
Docket: 30431.3US01
Title: LIFE EXTENSION OF DROSOPHILA BY A DRUG TREATMENT

CERTIFICATE UNDER 37 CFR 1.8

I hereby certify that this paper or fee is being deposited with the United States Postal as first class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231 on October 2, 2001.

By: 

Name: Tracy Trujillo

Assistant Commissioner for Patents
Washington, D.C. 20231

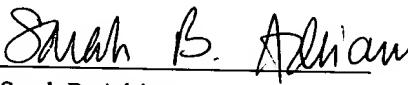
Sir:

We are transmitting herewith the attached:

- Transmittal sheet, in duplicate, containing Certificate under 37 CFR 1.8.
- Information Disclosure Statement (37 C.F.R. §1.97 (b)(3))
- Form 1449 (Information Disclosure Statement)
- Exhibits 1-18
- Return postcard

Please charge any additional fees or credit overpayment to Deposit Account No. 50-0306. A duplicate of this sheet is enclosed.

MANDEL & ADRIANO
35 No. Arroyo Parkway, Suite 60
Pasadena, California 91103
(626) 395-7801

By: 
Name: Sarah B. Adriano
Reg. No.: 34,470
Initials: SBA
Customer No. 26,941